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MYCOLOGICAL BULLETIN

No. 32

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A PO-LY'-PO-RUS NUMBER.—Though the fungi belonging to the *Pol-y'-po-ra'-ce-ae*, or Pore-fungi, are not so important to the mycophagist as some other groups they are just as interesting to the student and lover of Nature. When very young some of the species are edible and used to a considerable extent. They soon become tough or hard and leathery, most of the conspicuous forms being woody in consistency. Some of the common forms will be shown in this and succeeding Numbers of the BULLETIN.

CLASSIFICATION.—These fungi are near relatives of the *Ag'arics* or the *Gill-fungi*, inasmuch as the spores are borne on enlarged cells, called *ba-sid'-i-a*. Each *ba-sid'-i-um* bears at its apex a few (commonly two or four) spores at the tips of little stalks. The name of this slender stem or stalk is, in botanical language, *ster-ig'-ma*; the plural is *ster-ig'-ma-ta*. All fungi that produce *ba-sid'-i-a* and basidiospores constitute the group of *Ba-sid-i-o-my-ce'-tes*. Again, those fungi that bear the spores within a cell, which is called an *as'-cus*, form the group of *As-co-my-ce'-tes*. The common and conspicuous Mushrooms are members of these groups and are spoken of sometimes as the *true fungi*, or expressed in technical language, *Eu-my-ce'-tes*. The Grape Mildew, the Black Mould or *Mucor*, etc., are quite different in some of their characters, particularly in their mode of spore production; in fact they are in this respect, like some Algae and hence have been called *algal-fungi*. For this group the botanical name, which has this signification, is *Phy-co-my-ce'-tes*. At the risk of offending the gentle reader with a prolix classification, it may be said that these groups of plants, *i. e.*, the Fungi, may be set opposite the *Al'-gae* (the latter plants being simple in structure like the fungi, but unlike them in having *chlo'-ro-phyll*, or "leaf-green")—the two groups constituting what the botanists call *Thal'-lus* plants or *Thal'-lo-phytes*.

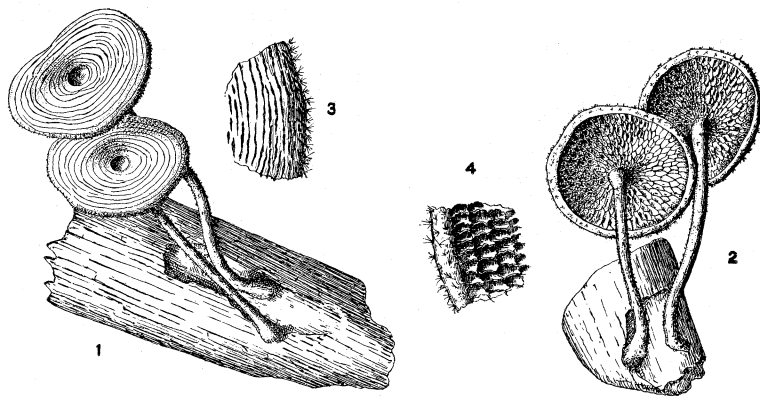


FIG. 101. PO-LY'-PO-RUS AR-CU-LA-RI-FOR'-MIS. This polypore was recently described as a new species by William A. Murrill, in the October Number of *Torreyia* (1904). It was collected at Unaka Springs, East Tennessee. The upper side is shown in Fig. 1, the under side in Fig. 2, magnified $2\frac{3}{4}$ times. A small portion of the upper surface is shown at 3, and a small portion of the lower surface is shown at 4, both magnified 8 times. Professor Murrill has kindly loaned us the electro for reproducing the figure of this interesting species.

MYCOLOGICAL GLOSSARY.

- Pilif'erous*: covered with soft hairs.
Placen'tiform: shape of a circular disk depressed above and below in the middle.
Plasmo'dium: the motile protoplasmic mass representing the vegetative stage of the slime-moulds.
Pli'cate: folded like a fan.
Plum'beous: lead-color, bluish-gray.
Poculiform: cup-shaped.
Pore: in the Pyrenomycetes same as ostiole or ostium.
Porrect: stretched horizontally.
Posterior: in case of the gills of the Agarics, denotes the point next to the stem; that is, the posterior end is that next to the stipe.
Pro'toplasm: the living nitrogenous mass of the cell which is the physical basis of life.
Pubes'cent: with short hairs.
Pul'vinate: cushion-shaped.
Punctate: dotted.
Pus'tular: with elevations like blisters or pustules.
Putres'cent: soon decaying.
Pycnidial spores: sporules, or the 'spores' (not ascospores) found in pycnidia.
Pycnidium (pl. *pycnidia*): a perithecium-like ascocarp or body in which sporules are produced.
Pyrenomycetes: the Ascomycetes with enclosed or nearly enclosed hymenium.
Recep'tacle: the part of the sporophore that contains the spores.
Remote: said of gills that do not reach the stem.
Re'pand: wavy.
Re'plicate: folded back upon itself.
Resu'pinate: attached by the back, hence the hymenium facing outwards; in this case there is no stem to the fungus which is spread over the matrix; applied to the Polypori, etc.
Revolute: rolled backward.
Rhizomorphs: the dark root-like mesh of mycelial cords often seen in rotten wood which represents the vegetative (perhaps resting) stage of Agarics, etc.
Rhodospo'rae: the pink or rosy spored Agarics.
Ri'mose or *rimous*: full of cracks.
Ring: the part of the partial-veil that adheres to the stem of an Agaric; annulus.
Ros'trate: beaked.
Rubes'cent: somewhat reddish in color.
Rufes'cent: of a dull red color, or becoming rufous.
Ru'gose: wrinkled.
Sanguin'eous: blood-colored.
Sap'rophyte: a fungus that draws its nourishment from dead vegetable or animal matter.
Scab'rous: with a rough surface.
Scis'sile: easily split; said of gills readily separable into two plates.
Sclero'tium: a hard black mass, sometimes resembling a tuber, which is the dormant or resting vegetative stage of some fungi, and from which later sporophores may arise.
Scorbie'ulate: with small pits or furrows.
Scu'tellate: like a plate or platter.
Sc'pia: deep dark reddish brown.
Sep'tate: having partitions.
Sep'tum: a partition.
Scri'ceous: silky.

[TO BE CONTINUED.]

Explaining similarly the basis of classification and arrangement of the other plants, we would have the Mosses and Liverworts forming the group *Bry'-o-phytes*; the Ferns, Scouring Rushes and Ground Pines forming the *Pter-id'-o-phytes*; and finally the Pines and common higher plants as Sage, Rose, Oak, Dandelion, etc., forming the *Sper-mat'-o-phytes*. Putting this all in the form of a diagram or synoptical tabulation we would have it presented to the eye thus:

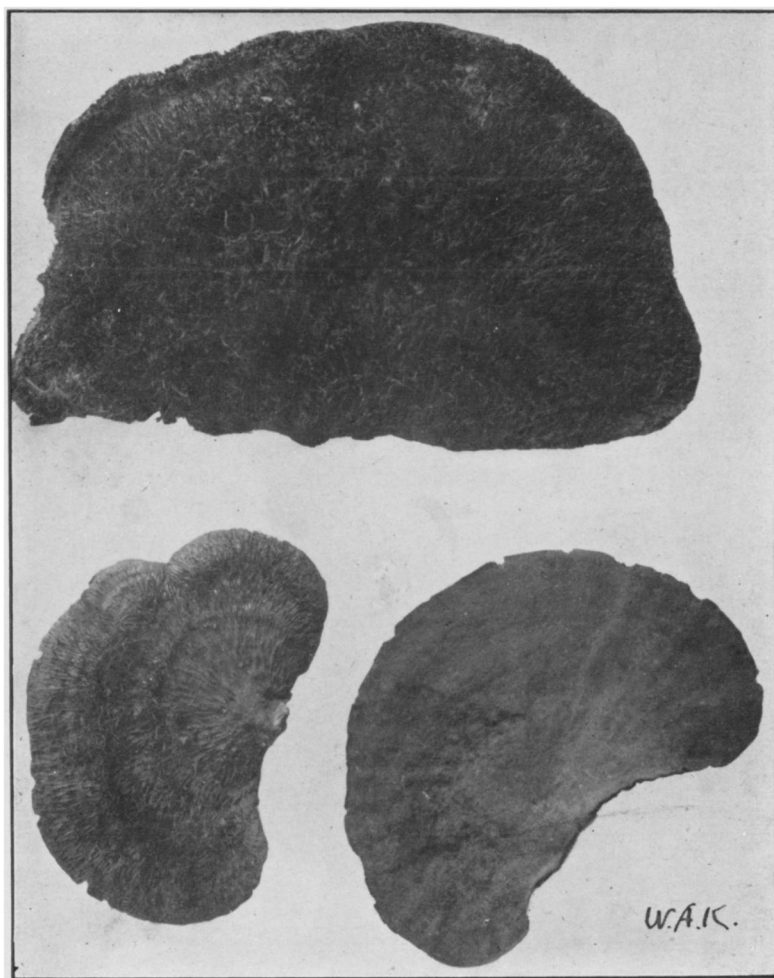


FIG. 102. PO-LY'-PO-RUS HYD-NOI'-DES. A Polypore from Central America, very striking by reason of its black color and covering of long bristles or scale-like hairs above. The underside is shown in the lower specimen on the right, and a small portion of this magnified is shown in FIG. 103. The plants were collected the past winter from old railroad ties, near Port Barrios, Guatemala.

PLANTS {

- SPER-MAT'-O-PHYTES, or the common higher plants, as the herbs, shrubs and trees.
- PTER-ID'-O-PHYTES, or the Ferns, Scouring Rushes, and Lycopods or Ground Pines.
- BRY'-O-PHYTES, or the Mosses and Liverworts.
- THAL'-LO-PHYTES {
 - Fungi {
 - Ba-sid'-i-o-my-cc'-tes
 - As'-co-my-cc'-tes
 - Phy'-co-my-cc'-tes
 - Algae

ORDERS COMPRISING THE BA-SID'-I-O-MY-CE'-TES.—If we carry this matter of tabulation a little further we will have the following scheme:

BA-SID'-I-O-MY-CE'-TES {

- NID-U-LAR-I-A'-LES, the Bird's-nest Fungi.
- LY-CO-PER-DA'-LES, the Puff-balls.
- PHAL-LA'-LES, the Phalloids or Stinkhorns.
- A-GAR-I-CA'-LES, Mushrooms and related Fungi.
- TRE-MEL-LA'-LES, the gelatinous Fungi.
- AU-RIC-U-LAR-I-A'-LES, the Jew's ear, etc.
- U-RE-DIN-A'-LES, the Rusts.
- US-TI-LA-CIN-A'-LES, the Smuts.

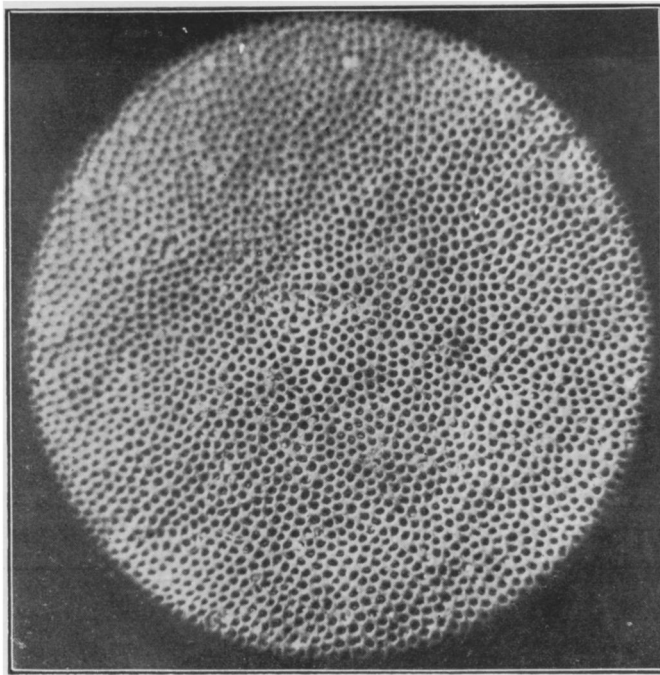


FIG. 103. The PORES or portion of the hymenial layer of PO-LY'-PO-RUS HYD-NOI'-DES. The microphotograph was made by using a 2-inch ocular and a 3-inch objective. The fungus is shown natural size in Fig. 102, where further explanation may be found.

The Mycological Bulletin is issued on the 1st and 15th of each Month, Price 25c. Copies of Vol. II (1904) may be had for 50 cents each, or cloth bound copies for 75 cents. No copies remain of Vol. I (1903). Address, W. A. Kellerman, Columbus, Ohio.